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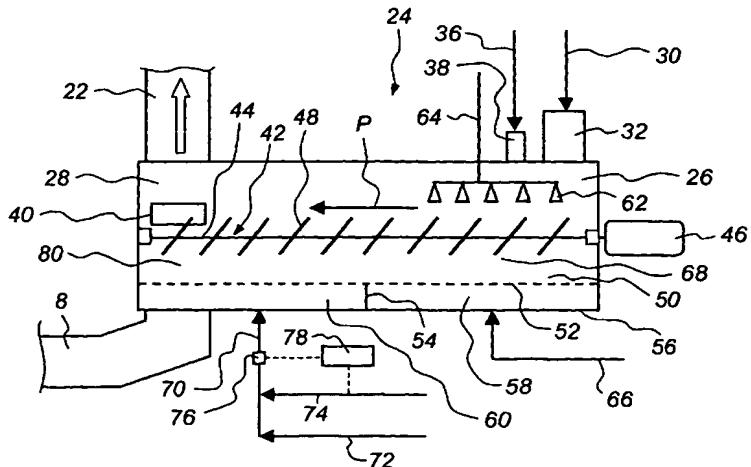
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(54) Title: METHOD AND DEVICE FOR SEPARATING GASEOUS POLLUTANTS FROM HOT PROCESS GASES BY ABSORPTION AND A MIXER FOR MOISTENING PARTICULATE DUST



(57) Abstract: In a method of separating gaseous pollutants from hot process gases, the process gases are passed through a contact reactor (22), in which an absorbent material in a moistened state is introduced to convert the gaseous pollutants into separable dust. The dust is separated in a dust separator (10). The separated dust is cooled in a first step by being brought into direct contact with a cooling fluid. In a second step, the cooled dust is mixed with a gas containing water vapour, said gas having a saturation temperature that is higher than the temperature of the cooled dust. The dust moistened by condensation of the water vapour is introduced into the contact reactor (22) to be mixed with the process gases. A mixer (24) for moistening absorbent material has a first end (26) and a second end (28) and is divided into two zones. A first zone is a cooling zone (68) located at the first end (26). A second zone is a moistening zone (80) located at the second end (28).

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